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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,655	05/12/2006	Klaus Wolter	102167.57012US	5590
23911 7590 06/26/2008 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300				
EXAMINER				
O'HARA, BRIAN M				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/559,655

Applicant(s)

WOLTER, KLAUS

Examiner

Brian M. O'Hara

Art Unit

4136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 12 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-850)
Paper No(s)/Mail Date 06/12/08, 5/12/06, 12/5/05
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-4, 7, 10-12, 17, 19, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Seyfang (European Patent Application 579,508 A1).** Seyfang discloses assisting the landing of a powered aircraft by provision of a stationary-generated fluid current (See Fig. 4A.), where the direction of the fluid current is adjusted (3 and page 2, Line 42-43), the value of at least one physical parameter of the fluid current is adjusted, where that parameter is velocity (Page 3, Line 13).
3. In regard to Claim 7, Seyfang discloses a wind generated artificially from the existing atmosphere (See Fig. 4A.).
4. In regard to Claims 10-12, Seyfang discloses a stationary fluid current generator (6), for a landing / takeoff area (4), where the fluid current can be adjusted (See Fig. 3), and at least one physical parameter of the fluid can be varied (Page 3, Line 13).
5. In regard to Claims 17, 19, and 21, Seyfang discloses at least one blower (6), a current generator designed to generate a wind (See Fig. 3), and varying a value of at least one physical parameter of the fluid current, where that parameter is velocity (Page 3, Line 13).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 5, 6, 8, 9, 14-16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seyfang in view of Corbett (US Patent 4,700,912 A).**

Seyfang discloses assisting the landing and/or takeoff of a powered flying object as described above, including the use of a turbofan (6), but does not disclose enriching the fluid current with at least one substance of higher specific density, or a fire extinguishing agent. Corbett discloses seeding a column of air with salt spray (Column 4, Line 33-34) for use in assisting an aircraft in takeoff and/or landing. This salt spray could be used to increase the specific density of the air column and as a fire extinguisher. Corbett also discloses a land-based system (See Fig. 5) which would inherently include a substance supply unit since access to ocean water would not be available.

8. In regard to claim 14, Corbett discloses introducing salt spray to the air column which would inherently cool the fluid current. Thus, a substance supply unit introducing salt spray would be a cooling element for the fluid current.

9. In regard to claims 8 and 9, Corbett discloses a method to assist the takeoff and landing of an aircraft (Column 2, Lines 43-68, and Column 3, Lines 1-15).

10. In regard to claim 20, Corbett discloses a control device for determining the optimum value of at least one parameter (direction) of the fluid current and for adjusting this at least on parameter value (See Fig. 4).

11. At the time of invention, it would have been obvious to a person of ordinary skill in this art to provide an enriched fluid current with a higher specific density and a fire extinguishing agent along with supply units and a control device to assist the takeoff and/or landing of an aircraft as disclosed in Seyfang in view of the teaching of Corbett. The motivation for doing so would have been to create a safer landing environment for the powered aircraft.

12. **Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seyfang in view of Bertin (US Patent 3,196,822 A).** Seyfang discloses an apparatus for assisting the takeoff and/or landing of a flying object as discussed above, but does not disclose a heating element for heating up the fluid current provided. Bertin discloses a heat exchanger (20) for use in heating up a fluid current in conjunction with a turbojet. At the time of invention, it would have been obvious to a person of ordinary skill in this art to provide a heating element in the landing/takeoff apparatus as disclosed in Seyfang in view of the teaching of Bertin. The motivation for doing so would have been to provide a fluid current that is more suitable for lifting a flying object, similar to a thermal column.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Czerwinski (US Patent 2,988,308 A) discloses a method of

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propelling an aircraft generally vertically at landing and take-off. Shimmel (US Patent 1,796,693 A) discloses a method and apparatus to provide means for landing and launching airplanes in a small area, including varying the direction of the apparatus and bringing the aircraft to a hover before landing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian M. O'Hara whose telephone number is (571)270-5224. The examiner can normally be reached on compressed 5/4/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James A. Shriver can be reached on (571)272-6698. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian M O'Hara/

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Examiner, Art Unit 4136

/Jerry Redman/

Primary Examiner, Art Unit 3634